

## BIOGRAPHICAL SKETCH

NAME		POSITION TITLE	
Guillemette, Chantal		Associate Professor	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Laval University (Quebec, Canada)	B.Sc.	1992	Biology
CHUL Research Center (Quebec, Canada)	Ph.D.	1996	Endocrinology
Trondheim University, Dr. JR. Idle	PDF	1997	Pharmacogenetics
Massachusetts Institute of Technology, Dr. DE. Housman	PDF	2000	Pharmacogenetics

### Professional Experience:

1990-1996	M.Sc. and Ph.D. student in the laboratory of Dr. Alain Belanger, CHUL Research Center
1996-1997	Post-Doctorat, CREMO laboratory, Dr. Fernand Labrie
1997-1997	Post-Doctorat, Trondheim University, Dr. Jeffrey R. Idle
1997-2000	Post-Doctorat, Massachusetts Institute of Technology, Dr. David E. Housman
2000-2002	Assistant Professor, Faculty of Pharmacy, Laval University, Quebec, Canada and Member of the CREMO laboratory
2002-	Associate Professor, Faculty of Pharmacy, Laval University, Quebec, Canada and Member of the CREMO laboratory
2003-	Chairholder of the Canada Research Chair in Pharmacogenomics

### Awards And Other Professional Activities:

1994	Best scientific lecture in Endocrinology and Physiology
1996	Ph.D. with Honors
1997-2000	Postdoctoral fellowship (Medical Research Council of Canada)
1997-1999	Postdoctoral fellowship (Fonds de la Recherche en Sante du Quebec)
2001-2006	Scholarship from Canadian Institute of Health Research (CIHR)
2001-2006	Scholarship from Canadian Institute of Health Research (CIHR and /RxD)
2001-2003	Scholarship from Fonds de la Recherche en Sante du Quebec (FRSQ)
2001-2003	Member of the FRSQ-Health research committee for the evaluation of post-doctoral fellowship application
2001-2002	Member of the committee for the evaluation of doctoral studentship IRSC
2002-	Member of the committee for the evaluation of research grant IRSC, Pharmaceutical Sciences
2001-	Member of the 'Fondation de l'enseignement et de la recherche' (FER), Faculty of Pharmacy, Laval University
2001-	Member of the Ethic committee, Laval University
2001-	Member of the Club de Recherche Cliniques du Quebec (CRCQ); ASPET, ISSX
2003-	Chairholder of the Canada Research Chair in Pharmacogenomics
2004-	President, Scientific committee 'Fondation de l'enseignement et de la recherche' (FER), Faculty of Pharmacy, Laval University

### Current Research Awards:

#### **"Canada Research Chair in Pharmacogenomics"**

Holder: Chantal Guillemette, PhD

Agency: Canada Research Chair Program and Canadian Institute of Health Research (CIHR)

Type: Individual investigator award (5 years – Level II young investigator)

Period: March, 2003 - March, 2008

#### **"Pharmacogenomics of UGT drug-metabolizing enzymes"**

Principal Investigator: Chantal Guillemette, PhD

Agency: Canadian Institute of Health Research (CIHR)

Type: Operating grant (initial 3 years and 5 years renewal)

Period: March, 2000 - March, 2008

#### **"A novel class of UDP-glucuronosyltransferase that control cell metabolism"**

Principal Investigator: Chantal Guillemette, PhD  
 Agency: Natural Sciences and Engineering Research Council of Canada (NSERC)  
 Type: operating grant (5 years)  
 Period: April 2007-March 2012

**“Metabolic profiling of estrogens in women”**

Principal Investigator: Chantal Guillemette, PhD  
 Agency: Canadian Institute of Health Research (CIHR)  
 Type: operating grant (Initial 3 years and 3 years renewal)  
 Period: Oct, 2001- Sept, 2007

**“Pharmacogenetics of Mycophenolic acid: role of UGT drug-metabolizing enzymes”**

Principal Investigator: Chantal Guillemette, PhD and Mary HH Ensom, Pharm.D.  
 Agency: Canadian Institute of Health Research (CIHR)  
 Type: operating grant (3 years)  
 Period: September, 2004 –September, 2008

**“Study of androgen and estrogen formation and metabolism in the human”**

Principal Investigator: Fernand Labrie, PhD  
 Agency: Canadian Institute of Health Research (CIHR)  
 Type: Group (5 year group award)  
 Period: October, 2001 - March, 2006

**“Génomique fonctionnelle et maladies endocriniennes”**

Principal Investigator: Fernand Labrie, PhD  
 Agency: Canadian Institute of Health Research (CIHR)  
 Type: MOP (6 years group award)  
 Period: March, 2002 –February, 2008

**Supervisory experience:** currently supervise; 1 undergraduate; 2 Master; 5 Doctoral and 1 Post-doctoral

**Publications (2003-2007):** (underline are students of CG)

Publications	Already published	Accepted or in the press
Refereed articles	42	3
Book chapter	1	
Patent	1	
Abstracts	103	
Invited conference	19	

- Bertrand Caillier\*, Johanie Lepine\*, Jelena Tojcic, Vincent Ménard, Louis Perusse, Alain Bélanger, Olivier Barbier and **Chantal Guillemette**. A pharmacogenomics study of the human estrogen glucuronosyltransferase UGT1A3. \*co-first authors Pharmacogenetics and Genomics July 2007 \* co-first authors
- Eric Lévesque, Robert Delage, Marie-Odile Benoit-Biancamano, Patrick Caron, Olivier Bernard, Félix Couture and **Chantal Guillemette**. Polymorphisms in UDP-glucuronosyltransferases UGT1A8 and UGT1A9 Result in a Significantly Altered Pharmacokinetic Mycophenolate Mofetil Profiles. Clinical Pharmacology and Therapeutics March 2007
- Eric Levesque\*, Hugo Girard\*, Kim Journault, Johanie Lepine and **Chantal Guillemette**. ‘Regulation of the UGT1A1 bilirubin-conjugating pathway: role of a new splicing event at the *UGT1A* locus’ Hepatology 2007 Jan;45(1):128-38. \*co-first authors
- Olivier Bernard, Jelena Tojcic, Kim Journault, Louis Perusse and **Chantal Guillemette**
- Influence of nonsynonymous polymorphisms of UGT1A8 and UGT2B7 metabolizing enzymes on the formation of phenolic and acyl glucuronides of mycophenolic acid. Drug Metabolism and Disposition, 2006 June 23
- Jean Thibaut, Johanie Lépine\*, Jelena Tojcic, Yannick Duguay, Georges Pelletier, Marie Plante, Jacques Brisson, Bernard Têtu, Simon Jacob, Louis Perusse, Alain Bélanger and **Chantal Guillemette**. Characterization of common UGT1A8, UGT1A9 and UGT2B7 variants with different capacity to inactivate mutagenic 4-hydroxylated metabolites of estradiol and estrone Cancer Res. 2006 Jan 1;66(1):125-33.
- Jean-François Gagnon, Olivier Bernard, Lyne Villeneuve, Bernard Têtu and **Chantal Guillemette**. Irinotecan inactivation is modulated by epigenetic silencing of UGT1A1 in colon cancer. Clinical Cancer Research, 2006 Mar 15;12(6):1850-8.

- Hugo Girard, Lyne Villeneuve, Michael H. Court, Louis-Charles Fortier, Patrick Caron, Qin Hao, Lisa L. von Moltke, David J. Greenblatt, **Chantal Guillemette**. The novel UGT1A9 intronic I399 polymorphism appears as a predictor of SN-38 glucuronidation levels in the liver. Drug Metabolism and Disposition, 2006 Apr 4; [Epub ahead of print]
- Hugo Girard, Jean Thibaut, Michael H. Court, Louis-Charles Fortier, Lyne Villeneuve, Patrick Caron, Lisa L. vonMoltke, David J.Greenblatt, **Chantal Guillemette**. UGT1A1 polymorphisms are important determinants of dietary carcinogen detoxification in the liver. Hepatology. 2005 Aug;42(2):448-57
- Butler LM, Duguay Y, Gagné JF, Millikan RC, Sinha R, Sandler RS, **Guillemette C**. Joint effects between UDP-glucuronosyltransferase 1A7 genotype and dietary carcinogen exposure on risk of colon cancer. Cancer Epidemiol Biomarkers Prev. 2005 Jul;14(7):1626-32.
- Mackenzie PI, Walter Bock K, Burchell B, **Guillemette C**, Ikushiro SI, Iyanagi T, Miners JO, Owens IS, Nebert DW. Nomenclature update for the mammalian UDP glycosyltransferase (UGT) gene superfamily. Pharmacogenet Genomics. 2005 Oct;15(10):677-685
- Yannick Duguay, Monica McGrath, Johanie Lépine, Jean-François Gagné, Susan E. Hankinson, Graham A. Colditz, David J. Hunter, Marie Plante, Bernard Têtu, Alain Bélanger, **Chantal Guillemette\***, Immaculata De Vivo. The functional UGT1A1 promoter polymorphism decreases endometrial cancer risk. Cancer Research. 2004 Feb 1;64(3):1202-1207
- Wells, P., P. Mackenzie, R. Chowdhury, **C. Guillemette** and J. K. Ritter. "Glucuronidation and the UDP-glucuronosyltransferases (UGTs) in drug therapy and disease." Drug Metab. Dispos. 2004 Mar;32(3):281-90.
- Yannick Duguay, Cecile Báár, Frank Skorpen, **Chantal Guillemette\*** A novel functional polymorphism in the UDP-glucuronosyltransferase 2B7 promoter that affects morphine glucuronidation in cancer patients. Clinical Pharmacology and Therapeutics. 2004 Mar;75(3):223-33.
- Hugo Girard, Michael H. Court, Olivier Bernard, Louis-Charles Fortier, Lyne Villeneuve, Qin Hao, David J.Greenblatt, Lisa L. vonMoltke, Louis Perusse, **Chantal Guillemette**. Identification of common polymorphisms in the promoter of the UGT1A9 gene: evidence that UGT1A9 protein and activity levels are strongly genetically controlled in the liver. Pharmacogenetics. 2004 Aug;14(8):501-515.
- Olivier Bernard and **Chantal Guillemette**. The main role of UGT1A9 in the metabolism of mycophenolic acid and the effects of naturally occurring variants. Drug Metabolism and Disposition. 2004 Aug;32(8):775-778.
- Johanie Lépine, Olivier Bernard, Marie Plante, Bernard Têtu, Fernand Labrie, Alain Bélanger, **Chantal Guillemette**. Specificity and regioselectivity of the conjugation of estradiol, estrone and their catecholestrogen and methoxyestrogen metabolites by human UGTs expressed in endometrium. J Clin Endocrinol Metab. 2004 Oct;89(10):5222-5232.
- Olivier Barbier, Lyne Villeneuve, Virginie Bocher, Coralie Fontaine, Ines Pineda Torra, Christian Duhem, Vladimir Kosykh, Jean-Charles Fruchart, **Chantal Guillemette** and Bart Staels. Hepatic expression of the UGT1A9 gene is governed by HNF4{alpha} Mol Pharmacol. 2004 Oct 6 [Epub ahead of print]
- **Chantal Guillemette**, Alain Bélanger and Johanie Lépine. Metabolic Inactivation of Estrogens in Breast Tissue by UDP-Glucuronosyltransferases. Breast Cancer Res 2004, 6:246-254 [Epub ahead of print 27 September 2004]
- **Chantal Guillemette\***, Pharmacogenomics of human UDP-glucuronosyltransferase enzymes. The Pharmacogenomics Journal 2003;3(3):136-58.
- Christopher A. Haiman, Susan E. Hankinson, Immaculata De Vivo, **Chantal Guillemette**, Naoko Ishibe, David J. Hunter, Celia Byrne. Polymorphisms in Candidate Breast Cancer Susceptibility Genes and Mammographic Density. Breast Cancer Research and Treatment 2003 Jan;77(1):27-36.
- Lyne Villeneuve, Hugo Girard, Louis-Charles Fortier and **Chantal Guillemette\***. Novel functional genetic variants of the UGT1A7 and UGT1A9 enzymes as potential molecular determinants of irinotecan-induced toxicity. J Pharmacol Exp Ther. 2003 Oct;307(1):117-28. Epub 2003 Aug 27.
- Barbier O, Villeneuve L, Bocher V, Fontaine C, Pineda Torra I, Duhem C, Kosykh V, Fruchart JC, **Guillemette C**, Staels B. The UDP-glucuronosyltransferase 1A9 enzyme is a peroxisome proliferator-activated receptor alpha and gamma target gene. J Biol Chem. 2003 Apr 18;278(16):13975-83